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F03-161820M/YSRECEIVED
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MAR 28 2007AMENDMENTS TO THE CLAIMS:

1. (Currently amended) An image compression method for compressing image data, comprising:
 - a ~~compression characteristics storing step for~~ storing compression characteristics data indicating compression characteristics of plural types of images in advance;
 - a ~~first compression parameter acquisition step for~~ acquiring an initial compression parameter;
 - a ~~second compression parameter acquisition step for~~ acquiring a corrective compression parameter; and
 - a ~~compression process step for~~ performing a compression process on image data of an image to be compressed based on one of the initial compression parameter and or the corrective compression parameter,
wherein the compression characteristics indicate a relationship between a bit rate, which is a ratio between data volume and the number of pixels of image data, and a compression parameter associated with image quality and compression rate of the compression process, [[:]]

wherein said acquiring an initial compression parameter the first compression parameter acquisition step acquires the initial compression parameter based on compression characteristics data of an average image and a target bit rate, [[:]] and
wherein said acquiring said corrective compression parameter the second compression parameter acquisition step includes the steps of:
 - acquiring information indicating complexity of the image to be compressed based on the bit rate of compressed image data acquired in performing said at the compression process step, a compression parameter used in said performing said at the compression process step, and the compression characteristics data; and
 - acquiring the corrective compression parameter based on compression characteristics data of an image having the complexity and the target bit rate.
2. (Currently amended) The image compression method according to claim 1,

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wherein the compression process comprises is a compression process based on Joint Photographic Experts Group (JPEG) JPEG standard, and wherein the compression parameter comprises is a Q-value.

3. (Currently amended) An image compression apparatus for compressing image data, comprising:

a compression characteristics storing section for storing compression characteristics data indicating compression characteristics of plural types of images; and
a compression process section for performing a compression process on image data of an image to be compressed,

wherein the compression characteristics indicate a relationship between a bit rate, which is a ratio between data volume and the number of pixels of image data, and a compression parameter associated with image quality and compression rate of the compression process, [[:]]

wherein the compression process section includes a compression parameter acquisition unit for acquiring an initial compression parameter and a corrective compression parameter, and a compression process performing unit for performing the compression process based on one of the initial compression parameter and or the corrective compression parameter, [[:]]

wherein the compression parameter acquisition unit acquires the initial compression parameter based on compression characteristics data of an average image and a target bit rate and acquires the corrective compression parameter based on information indicating complexity of the image to be compressed, the compression characteristics data of an image having the complexity, and the target bit rate; and

wherein the compression process section estimates the complexity of the image to be compressed based on the bit rate of compressed image data acquired by the compression process, compression parameters used at the compression process, and the compression characteristics data.

4. (Currently amended) The image compression apparatus according to claim 3, wherein the compression process comprises is a compression process based on Joint

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Photographic Experts Group (JPEG) JPEG standard, and wherein the compression parameter comprises is a Q-value.

5. (Currently amended) An image compression apparatus for compressing image data, comprising:

a compression characteristics memory which stores compression characteristics data indicating compression characteristics of plural types of images; and

a compression processor which performs a compression process on image data of an image to be compressed,

wherein the compression characteristics indicate a relationship between a bit rate, which is a ratio between data volume and the number of pixels of image data, and a compression parameter associated with image quality and compression rate of the compression process, [[;]]

wherein the compression processor includes a compression parameter acquisition unit which acquires an initial compression parameter and a corrective compression parameter, and a compression process performing unit which performs the compression process based on the initial compression parameter or the corrective compression parameter, [[;]]

wherein the compression parameter acquisition unit acquires the initial compression parameter based on compression characteristics data of an average image and a target bit rate and acquires the corrective compression parameter based on information indicating complexity of the image to be compressed, the compression characteristics data of an image having the complexity, and the target bit rate, [[;]] and

wherein the compression processor estimates the complexity of the image to be compressed based on the bit rate of compressed image data acquired by the compression process, compression parameters used at the compression process, and the compression characteristics data.

6. (New) The image compression method according to claim 1, wherein said compression process comprises at least one of a discrete cosine transform process, a quantization process, and a Huffman coding process.

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7. (New) The image compression method of claim 2, wherein said Q-value comprises a variable between 0 and 1, and an image quality of a compressed image formed by said compressed image data is improved by increasing said Q-value.

8. (New) The image compression method of claim 1, further comprising:
determining said compression characteristics by:

performing a compression process on sample image data for a sample image using a predetermined compression parameter, to acquire a bit rate from a data volume of compressed sample image data and the number of pixels of said sample image.

9. (New) The image compression method of claim 8, wherein said determining said compression characteristics further comprises:

repeating said compression process on said sample image data plural times using different compression parameters.

10. (New) The image compression method of claim 9, wherein said sample image comprises plural sample images of varying complexity.

11. (New) The image compression method of claim 1, wherein said storing said compression characteristics comprises storing said compression characteristics in one of a table and a function for approximating said compression characteristics.

12. (New) The image compression method of claim 1, further comprising:
acquiring said target bit rate from a number of pixels of said image data of said image to be compressed and a target data volume of compressed image data.

13. (New) The image compression method of claim 12, further comprising:
acquiring a data volume of said compressed image data generated by the compression process.

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14. (New) The image compression method of claim 13, further comprising: judging whether said acquired data volume is within a range of limitation.
15. (New) The image compression method of claim 14, further comprising: if said acquired data volume is within said range of limitation, terminating said compression process.
16. (New) The image compression method of claim 15, further comprising: if said acquired data volume is other than within said range of limitation, performing said acquiring said corrective compression parameter, said acquiring said corrective compression parameter further comprising:
 - acquiring a bit rate of said compressed image data;
 - acquiring a function that gives said bit rate of said compressed image data for said initial compression parameter with reference to said compression characteristics data;
 - acquiring another compression parameter by using said target bit rate and said acquired function; and
 - repeating said performing said compression process using said another compression parameter and said judging whether said data volume of said compressed image data is within said range of limitation until said data volume of said compressed image data is within said range of limitation.
17. (New) The image compression apparatus according to claim 5, further comprising:
 - an input device for inputting said image data and target data volume for performing said compression process; and
 - an output device for outputting said compressed image data.
18. (New) A digital camera comprising the image compression apparatus according to claim 5.

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19. (New) A computer comprising the image compression apparatus according to
claim 5.